

(19) **KOREAN INTELLECTUAL PROPERTY OFFICE**

# KOREAN PATENT ABSTRACTS

(11)Publication number: **1020020059296**  
**A**  
 (43)Date of publication of application: **12.07.2002**

(21)Application number: **1020020032886**  
 (22)Date of filing: **12.06.2002**  
 (30)Priority: **..**

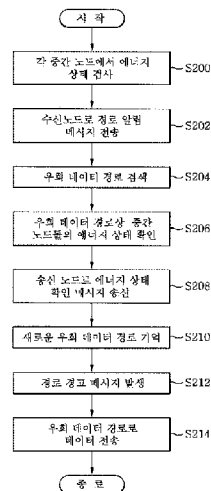
(71)Applicant: **INFORMATION AND COMMUNICATIONS UNIVERSITY EDUCATIONAL FOUNDATION WINSROAD CO., LTD.**  
 (72)Inventor: **KIM, MYEONG CHEOL LEE, EUN GYU**

(51)Int. Cl **H04L 12/28**

## (54) DATA TRANSMISSION NODE CHANGING METHOD FOR ENERGY BALANCE IN MOBILE AD HOC NETWORK

(57) Abstract:

**PURPOSE:** A data transmission node changing method for an energy balance in a mobile ad hoc network is provided to reduce an energy consumption of a mobile node by informing a transmission side of a data or a neighbor node that an energy of an intermediate node is dropped to below a certain value as happened so that the data can be transmitted through a different route and the energy of the intermediate node may not be consumed anymore. **CONSTITUTION:** Intermediate nodes periodically check an energy state of each node while a data is being transmitted(S200). If an energy state of each node is determined to be lower than a pre-set reference value, the intermediate nodes transmit a route informing message to a receiving node(S202). Upon receiving the route informing message, different intermediate nodes check whether there is a different data alternative route other than the current route(S204). A transmission node transmits an alternative route energy confirmation message to the receiving node (S206). Upon receiving the message, the receiving node transmits a confirmation message to the transmission node if there is no problem in the energy state(S208), and the transmission node stores the alternative route as a new data transmission route(S210). If the energy of one intermediate node



drops to further below, the intermediate node generates a route warning message, which is transmitted to the transmission node via other intermediate node(S212). The transmission node confirms the energy state of the one intermediate node, changes the existing data transmission route to the alternative route obtained through the route informing message and transmits the data(S214).

copyright KIPO 2003

#### Legal Status

Date of request for an examination (20020612)

Notification date of refusal decision ( )

Final disposal of an application (registration)

Date of final disposal of an application (20050224)

Patent registration number (1004928490000)

Date of registration (20050524)

Number of opposition against the grant of a patent ( )

Date of opposition against the grant of a patent ( )

Number of trial against decision to refuse ( )

Date of requesting trial against decision to refuse ( )